



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2014-0651; Directorate Identifier 2014-NM-043-AD]

RIN 2120-AA64

Airworthiness Directives; Gulfstream Aerospace Corporation Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Supplemental notice of proposed rulemaking (NPRM); reopening of comment period.

SUMMARY: We are revising an earlier proposed airworthiness directive (AD) for all Gulfstream Aerospace Corporation Model GV and GV-SP airplanes. The NPRM proposed to supersede Airworthiness Directive (AD) 2013-22-19, which requires inspecting to determine if fuel boost pumps having a certain part number are installed, replacing the fuel boost pumps having a certain part number, and revising the airplane maintenance or inspection program to include revised instructions for continued airworthiness. The NPRM also proposed to require revising the airplane maintenance program to include a fuel leak check of the fuel boost pumps, using new service information. The NPRM was prompted by reports of two independent types of failure of the fuel boost pump: overheat damage on the internal components and external housing, and fuel leakage. This action revises the NPRM by reducing the compliance time for revising the airplane maintenance program. We are proposing this supplemental NPRM (SNPRM) to prevent fuel leakage in combination with a capacitor clearance issue, which could result in an uncontrolled fire in the wheel well. Since these actions impose an additional burden over that proposed in the NPRM, we are reopening the comment period to allow the public the chance to comment on these proposed changes.

DATES: We must receive comments on this SNPRM by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Gulfstream Aerospace Corporation, Technical Publications Dept., P.O. Box 2206, Savannah, GA 31402-2206; telephone 800-810-4853; fax 912 965-3520; email pubs@gulfstream.com; Internet http://www.gulfstream.com/product_support/technical_pubs/pubs/index.htm. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2014-0651; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any

comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Sanjana Murthy, Aerospace Engineer, ACE-118A, FAA, Atlanta Aircraft Certification Office, 1701 Columbia Avenue, College Park, GA 30337; telephone: 404-474-5573; fax: 404-474-5567; email: sanjana.murthy@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2014-0651; Directorate Identifier 2014-NM-043-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

We issued an NPRM to amend 14 CFR part 39 to supersede AD 2013-22-19, Amendment 39-17651 (78 FR 72554, December 3, 2013), which applies to all Gulfstream Aerospace Corporation Model GV and GV-SP airplanes. The NPRM published in the Federal Register on October 1, 2014 (79 FR 59162). The NPRM proposed to continue to require inspecting to determine if fuel boost pumps having a

certain part number are installed, replacing the fuel boost pumps having a certain part number, and revising the airplane maintenance or inspection program to include revised instructions for continued airworthiness. The NPRM also proposed to require revising the airplane maintenance program to include a fuel leak check of the fuel boost pumps, using new service information.

Actions Since Previous NPRM (79 FR 59162, October 1, 2014) was Issued

Since we issued the NPRM (79 FR 59162, October 1, 2014), we have determined it is necessary to reduce the compliance time for revising the airplane maintenance or inspection program in order to address the identified unsafe condition in a timely manner. Paragraph (i) of the proposed AD specifies a compliance time of “within 500 flight hours after the effective date of this AD” to accomplish the revision, which incorporates the fuel leak check inspection of the fuel boost pumps. The leak check is intended to be performed at 500-hour increments after the installation of the part number (P/N) 1159SCP500-7 boost pump. However, operators that have already installed the P/N 1159SCP500-7 boost pump would not be required to perform the leak check until after the maintenance or inspection program is revised, i.e., within 500 flight hours after the effective date of the AD instead of within 500 flight hours after installation. We have determined a compliance time of “within 30 days after the effective date of this AD” represents an appropriate interval of time to revise the airplane maintenance or inspection program. We have revised paragraph (i) of this proposed AD accordingly.

Comments

We gave the public the opportunity to participate in developing this proposed AD. The following presents the comments received on the NPRM (79 FR 59162, October 1, 2014) and the FAA’s response to each comment.

Request to Use Later Revision of the Service Information

Gulfstream requested that the FAA reference the upcoming revision to the airworthiness limitations section of the GV, G500, and G550 maintenance manuals. Gulfstream stated that the maintenance manuals will include a revised fuel leak check interval of 500 hours \pm 50 hours. Gulfstream stated that drafts of the maintenance manuals were scheduled to be submitted to the FAA by December 2014, with FAA approval expected. Gulfstream also stated that the revisions to the airplane maintenance program include revised instructions for continued airworthiness to avoid future AD revisions on this subject. Gulfstream stated that AD 2013-22-19, Amendment 39-17651 (78 FR 72554, December 3, 2013), references the 05-20-00, Table 20 Fuel Boost Pump fuel leak check interval of 500 hours, which would prohibit the \pm 50-hour provision that the Gulfstream safety assessment allows, limiting the flexibility of Gulfstream's operators to perform this fuel leak check concurrently with other scheduled maintenance.

We have reviewed the supporting data for this request and we agree with the request to change the compliance time. We have revised paragraph (i) of this proposed AD to accommodate this request. In order to decrease the burden on operators, we are adding 50 hours to the compliance time, which will enable operators to complete the requirements of this proposed AD as well as their mandatory inspection requirement during the same overhaul.

Operators may request approval to use a later revision of the referenced service information, when it is approved, as an alternative method of compliance (AMOC) under the provisions of paragraph (m) of this proposed AD.

Request to Revise the Compliance Time

Gulfstream requested that a compliance time specified in paragraph (i)(2) of the proposed AD (79 FR 59162, October 1, 2014) be revised. Gulfstream requested that the following language be included in paragraph (i)(2) of the proposed AD, which is for

airplanes on which the inspection required by paragraph (g) of the proposed AD reveals that a fuel boost pump with Gulfstream P/N 1159SCP500-7 has been installed:

“The initial compliance time ... is within 500 flight hours after installation of the P/N 11 59SCP500-7 pump, or within 50 flight hours after doing the inspection required by paragraph (g) of this AD if 500 flight hours have accumulated since installation of the P/N 1159SCP500-7 pump and an initial leak check of the pump has not been accomplished.”

We agree to revise the compliance time. The leak check is intended to be performed at 500-hour increments \pm 50 flight hours after the installation of the P/N 1159SCP500-7 boost pump. We have added new paragraph (i)(2)(i) to this proposed AD to specify compliances times relative to installation of the P/N 11 59SCP500-7 pump.

FAA’s Determination

We are proposing this SNPRM because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design. Certain changes described above expand the scope of the proposed AD (79 FR 59162, October 1, 2014). As a result, we have determined that it is necessary to reopen the comment period to provide additional opportunity for the public to comment on this SNPRM.

Proposed Requirements of this SNPRM

This SNPRM would require inspecting to determine if fuel boost pumps having a certain part number are installed, replacing the fuel boost pumps having a certain part number, and revising the airplane maintenance or inspection program to include revised instructions for continued airworthiness.

Related Service Information under 1 CFR part 51

We have reviewed Gulfstream G500 Customer Bulletin 122, dated April 11, 2012 (for Model GV-SP airplanes designated as G500), which describes procedures for inspecting and replacing the fuel boost pumps.

We have also reviewed the following service information, as applicable, which describes, among other actions, a fuel leak check of the fuel boost pumps and inspection intervals:

- Table 18, 500 Flight Hours Scheduled Inspection Table, in Section 05-20-00, of Chapter 5, Time Limits/Maintenance Checks, of the Gulfstream V Maintenance Manual, Revision 42, dated June 20, 2013;
- Task 28-26-01, Fuel Boost Pumps – Fuel Leak Check, of Chapter 28, Fuel, of the Gulfstream V Maintenance Manual, Revision 42, dated June 20, 2013;
- Task 28-26-01, Fuel Boost Pumps – Fuel Leak Checks, in Table 20, 500 Flight Hours Scheduled Inspection Table, in Section 05-20-00, of Chapter 5, Time Limits/Maintenance Checks, of the Gulfstream G500 Maintenance Manual, Revision 23, dated June 20, 2013;
- Task 28-26-01, Fuel Boost Pumps – Fuel Leak Check, of Section 26, Fuel Boost Pumps, of Chapter 28, Fuel, of the Gulfstream G550 Maintenance Manual, Revision 23, dated June 20, 2013;
- Task 28-26-01, Fuel Boost Pumps – Fuel Leak Check, in Table 20, 500 Flight Hours Scheduled Inspection Table, in Section 05-20-00, of Chapter 5, Time Limits/Maintenance Checks, of the Gulfstream G550 Maintenance Manual, Revision 23, dated June 20, 2013; and

- Task 28-26-01, Fuel Boost Pumps – Fuel Leak Check, of Section 26, Fuel Boost Pumps, of Chapter 28, Fuel, of the Gulfstream G550 Maintenance Manual, Revision 23, dated June 20, 2013.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Costs of Compliance

We estimate that this proposed AD would affect 357 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

Estimated costs

| Action | Labor cost | Parts cost | Cost per product | Cost on U.S. operators |
|---|---------------------------------------|------------|------------------|------------------------|
| Inspection to determine if a certain part number is installed [retained actions from AD 2013-22-19, Amendment 39-17651 (78 FR 72554, December 3, 2013)] | 1 work-hour X \$85 per hour = \$85 | \$0 | \$85 | \$30,345 |
| Maintenance program revision [new proposed action] | 1 work-hour X \$85 per hour = \$85 | \$0 | \$85 | \$30,345 |

We estimate the following costs to do any necessary replacements that would be required based on the results of the inspection. We have no way of determining the number of aircraft that might need these replacements:

On-condition cost

| Action | Labor cost | Parts cost | Cost per product |
|---------------|---|-------------------|-------------------------|
| Replacement | 24 work-hours X \$85 per hour = \$2,040 | \$7,600 | \$9,640 |

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. “Subtitle VII: Aviation Programs” describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: “General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

- 2. The FAA amends § 39.13 by removing Airworthiness Directive (AD) 2013-22-19, Amendment 39-17651 (78 FR 72554, December 3, 2013), and adding the following new AD:

Gulfstream Aerospace Corporation: FAA-2014-0651; Directorate Identifier 2014-NM-043-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD replaces AD 2013-22-19, Amendment 39-17651 (78 FR 72554, December 3, 2013).

(c) Applicability

This AD applies to all Gulfstream Aerospace Corporation Model GV and GV-SP airplanes, certificated in any category.

(d) Subject

Air Transport Association (ATA) of America Code 28, Fuel.

(e) Unsafe Condition

This AD was prompted by reports of two independent types of failure of the fuel boost pump: overheat damage on the internal components and external housing, and fuel leakage. We are issuing this AD to prevent fuel leakage in combination with a capacitor clearance issue, which could result in an uncontrolled fire in the wheel well.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Retained Inspection to Determine the Part Number, with Revised Service Information

This paragraph restates the actions required by paragraph (g) of AD 2013-22-19, Amendment 39-17651 (78 FR 72554, December 3, 2013), with revised service information. Within 36 months after January 7, 2014 (the effective date of AD 2013-22-19), inspect the fuel boost pumps to determine whether Gulfstream part number (P/N) 1159SCP500-5 is installed, in accordance with the Accomplishment Instructions of the applicable service information identified in paragraphs (g)(1), (g)(2), and (g)(3) of this AD; including Triumph Aerostructures Service Bulletin SB-TAGV/GVSP-28-JG0162, dated August 30, 2011; and GE Service Bulletin 31760-28-100, dated February 15, 2011. A review of airplane maintenance records is

acceptable in lieu of this inspection if the part number of the fuel boost pumps can be conclusively determined from that review.

(1) For Model GV airplanes: Gulfstream V Customer Bulletin 197, dated April 11, 2012.

(2) For Model GV-SP airplanes designated as G500: Gulfstream G500 Customer Bulletin 122, dated April 11, 2012; or Gulfstream G550 Customer Bulletin 122, dated April 11, 2012.

(3) For Model GV-SP airplanes designated as G550: Gulfstream G550 Customer Bulletin 122, dated April 11, 2012.

(h) Retained Replacement with Revised Service Information

This paragraph restates the actions required by paragraph (h) of AD 2013-22-19, Amendment 39-17651 (78 FR 72554, December 3, 2013), with revised service information. If the inspection required by paragraph (g) of this AD reveals a fuel boost pump with Gulfstream P/N 1159SCP500-5: Within 36 months after January 7, 2014 (the effective date of AD 2013-22-19), replace the fuel boost pump with a serviceable pump having Gulfstream P/N 1159SCP500-7, in accordance with the applicable service information identified in paragraphs (h)(1), (h)(2), and (h)(3) of this AD; including Triumph Aerostructures Service Bulletin SB-TAGV/GVSP-28-JG0162, dated August 30, 2011; and GE Service Bulletin 31760-28-100, dated February 15, 2011.

(1) For Model GV airplanes: Gulfstream V Customer Bulletin 197, dated April 11, 2012.

(2) For Model GV-SP airplanes designated as G500: Gulfstream G500 Customer Bulletin 122, dated April 11, 2012; or Gulfstream G550 Customer Bulletin 122, dated April 11, 2012.

(3) For Model GV-SP airplanes designated as G550: Gulfstream G550 Customer Bulletin 122, dated April 11, 2012.

(i) New Revision of the Maintenance or Inspection Program

Within 30 days after the effective date of this AD, revise the airplane maintenance or inspection program, as applicable, to include the fuel leak check inspection of the fuel boost pumps specified in the applicable task identified in paragraph (j) of this AD.

(1) For airplanes on which fuel boost pump Gulfstream P/N 1159SCP500-5 has been replaced in accordance with paragraph (h) of this AD: The initial compliance time for the leak check inspection specified in the applicable task identified in paragraph (j) of this AD is within 550 flight hours after doing the replacement specified in paragraph (h) of this AD, or within 30 days after the effective date of this AD, whichever occurs later.

(2) For airplanes on which the inspection required by paragraph (g) of this AD reveals that a fuel boost pump with Gulfstream P/N 1159SCP500-7 has been installed: The initial compliance time for the leak check inspection specified in the applicable task identified in paragraph (j) of this AD, is at the later of the times specified in paragraphs (i)(2)(i) and (i)(2)(ii) of this AD.

(i) Within 550 flight hours after the installation of the P/N 1159SCP500-7 pump; except if 550 flight hours have accumulated since installation of the P/N 1159SCP500-7 pump and an initial leak check of the pump has not been accomplished, the compliance time is within 50 flight hours after doing the inspection required by paragraph (g) of this AD.

(ii) Within 30 days after the effective date of this AD.

(j) Service Information for Maintenance Program Revision

Use the applicable service information specified in paragraph (j)(1), (j)(2), or (j)(3) of this AD to revise the airplane maintenance or inspection program, as applicable, as required by paragraph (i) of this AD.

(1) For Model GV airplanes: Use table 18, “500 Flight Hours Scheduled Inspection Table,” in section 05-20-00, of chapter 5, Time Limits/Maintenance Checks; and task 28-26-01, Fuel Boost Pumps – Fuel Leak Check, of chapter 28, Fuel; of the Gulfstream V Maintenance Manual, Revision 42, dated June 20, 2013.

(2) For Model GV-SP airplanes designated as G500: Use task 28-26-01, Fuel Boost Pumps – Fuel Leak Checks, in table 20, “500 Flight Hours Scheduled Inspection Table,” in section 05-20-00, of chapter 5, Time Limits/Maintenance Checks; and task 28-26-01, Fuel Boost Pumps – Fuel Leak Check, of section 26, Fuel Boost Pumps, of chapter 28, Fuel; of the Gulfstream G500 Maintenance Manual, Revision 23, dated June 20, 2013.

(3) For Model GV-SP airplanes designated as G550: Use task 28-26-01, Fuel Boost Pumps – Fuel Leak Check, in table 20, “500 Flight Hours Scheduled Inspection Table,” in section 05-20-00, of chapter 5, Time Limits/Maintenance Checks; and task 28-26-01, Fuel Boost Pumps – Fuel Leak Check, of section 26, Fuel Boost Pumps, of chapter 28, Fuel; of the Gulfstream G550 Maintenance Manual, Revision 23, dated June 20, 2013.

(k) No Alternative Actions or Intervals

After accomplishing the revision required by paragraph (i) of this AD, no alternative actions (e.g., inspections) or intervals may be used unless the actions or intervals are approved as an alternative method of compliance in accordance with the procedures specified in paragraph (m) of this AD.

(l) Parts Installation Prohibition

As of January 7, 2014 (the effective date of AD 2013-22-19, Amendment 39-17651 (78 FR 72554, December 3, 2013)), no person may install a fuel boost pump having Gulfstream P/N 1159SCP500-5 on any airplane.

(m) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Atlanta Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in paragraph (n)(1) of this AD.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) AMOCs approved for AD 2013-22-19, Amendment 39-17651 (78 FR 72554, December 3, 2013), are approved as AMOCs for the corresponding provisions of this AD.

(4) For service information that contains steps that are labeled as Required for Compliance (RC), the provisions of paragraphs (m)(4)(i) and (m)(4)(ii) apply.

(i) The steps labeled as RC, including substeps under an RC step and any figures identified in an RC step, must be done to comply with the AD. An AMOC is required for any deviations to RC steps, including substeps and identified figures.

(ii) Steps not labeled as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the RC steps, including substeps and identified figures, can still be done as specified, and the airplane can be put back in an airworthy condition.

(n) Related Information

(1) For more information about this AD, contact Sanjana Murthy, Aerospace Engineer, ACE-118A, FAA, Atlanta Aircraft Certification Office, 1701 Columbia Avenue, College Park, GA 30337; telephone: 404-474-5573; fax: 404-474-5567; email: sanjana.murthy@faa.gov.

(2) For service information identified in this AD, contact Gulfstream Aerospace Corporation, Technical Publications Dept., P.O. Box 2206, Savannah, GA 31402-2206; telephone 800-810-4853; fax 912 965-3520; email pubs@gulfstream.com; Internet http://www.gulfstream.com/product_support/technical_pubs/pubs/index.htm. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on November 24, 2015.

Jeffrey E. Duven,
Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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